Achieve

# Testimony of Michael Cohen, President of Achieve to the Michigan House Education Committee in response to House Bills 5451, 5456, 5534 and 5645 *Michigan's Merit Curriculum* June 6, 2012

## About Achieve

Created by the nation's governors and business leaders in 1996, Achieve is a bi-partisan, non-profit organization that helps states raise academic standards, improve assessments and strengthen accountability in schools to ensure students are prepared for post-secondary education and meaningful careers.

The purpose of this testimony is to urge the Michigan House Education Committee to refrain from taking action that would undermine Michigan's commitment to prepare all students for life after high school. Specifically, we oppose the direction of House Bills 5451, 5456 and 5534 and urge you to maintain the Michigan Merit Curriculum.

## There has been a convergence of the skills needed to succeed in the workforce *and* postsecondary education.

Strengthening high school graduation requirements is a critical part of ensuring all students are prepared for college and careers. Never in our nation's history has the link between strong academic preparation in high school and success in careers, college and life been clearer. College faculty and employers agree there is no longer a distinction between the academic skills required for college and for work, particularly in reading, writing and mathematics.[1] In the past, students bound for the workforce needed less-rigorous preparation than those bound for college. This is no longer the case.

Eighty percent of the fastest growing jobs will require some postsecondary education or training.[2] This includes bachelor's and associate's degrees, vocational certifications, apprenticeships, and other credentials.[3] Growth in math-intensive science and engineering jobs is outpacing overall job growth by three to one,[4] including a number of jobs that are available to individuals with some postsecondary education, *but* less than a four-year degree, and who have strong math and science skills. Middle-skill jobs, which require more than high-school, but less than a four-year degree, make up 79 percent of Michigan's labor market, yet only 36 percent of the state's workers likely have the appropriate training for these jobs.[5] Michigan's demand for middle- and high-skilled workers is outpacing the state's supply of workers educated and experienced at that level.

Research by Achieve, ACT and others, including the research behind the Common Core State Standards, suggests that for high school graduates to be prepared for success in a wide range of postsecondary settings, they need to take four years of challenging mathematics — covering Advanced Algebra;

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[1] Adelman et al., *Postsecondary Attainment, Attendance, Curriculum, and Performance: Selected Results From the NELS:88/2000 Postsecondary Education Transcript Study* (PETS), 2000, September 2003, Table 11. Carnevale and Desrochers, Educational Testing Service, *Connecting Education Standards and Employment: Course-Taking Patterns of Young Workers*, American Diploma Project: Workplace Study, 2002. ACT, *Crisis at the Core: Preparing All Students for College and Work,* October 2004. ACT, *Ready for College and Ready for Work: Same or Different?*, May 2006.

[2] Holzer, Harry J. and Robert I. Lerman (Feb 2009). *The Future of Middle-Skill Jobs*. Brookings Institution

[3] Dohm, A. & Shniper, L. (2007, November). Employment outlook: 2006–16. Washington, DC: Bureau of Labor Statistics. (p. 90) Formal postsecondary education or training defined as a bachelor's degree, associate's degree, or vocational training certificate.

[4] National Science Board cited in U.S. Department of Education. (2008). The Final Report of the National Mathematics Advisory Panel. Washington, DC: Author. (p. xii)

[5] http://www.skills2compete.org/

Geometry; and data, probability, and statistics content — and four years of rigorous English aligned with college- and career-ready standards. While readiness depends on more than knowledge and skills in English and math, these core disciplines undergird other academic and technical courses and are considered essential by employers and colleges alike. Career and technical education (CTE), dual enrollment, early college programs, and other programs play a critical role in expanding access for more students, while providing career exploration, technical and workforce skills, and other important non-academic experiences. For students to truly graduate ready for college and careers, they need to complete a rigorous, robust and well-rounded curriculum that exposes them to a wide range of academic and technical knowledge and skills to ensure all doors are left open for them when they leave high school.

The 81 Career Cluster Pathway Plans of Study, developed by secondary, postsecondary, business, industry and government leaders to serve as guides for CTE students' educational and career goals in a wide range of careers–health care, manufacturing, finance, among others–recommend that all CTE students take a rigorous set of math requirements at the secondary and postsecondary levels. At a minimum, every Plan of Study recommends that students complete Algebra II and one additional higher-level math course, such as Statistics and Pre-Calculus. As states like Michigan work to align their education systems with the goal of graduating all students ready for college, careers and life, academic and CTE leaders at the state and local levels can and should maximize this opportunity to finally break down the silos between their disciplines and collectively find ways to ensure that the new standards rigorously engage all students in both academic and CTE courses.

**Higher-level math opens doors for any and all postsecondary programs and keeps it open for advancement beyond entry-level jobs. This increases equity and access.**

The challenge before us is to ensure all students have access to the academic skills they need so that they make their own career decisions – as opposed to having those decisions *made for them* because they did not have the academic preparation they needed. Individual school districts will always have the flexibility to define local course requirements, but states must set the floor for what all students need to be ready for life after high school.

In a national survey, minority students expressed just as much interest in taking advanced math courses as white students, with minority girls expressing the most interest. Yet for minority students, *interest far exceeds availability*. Among white boys, the gap between those interested in taking advanced math and those saying such courses are available to them was just eight percentage points, while among minority girls that gap was 30 points—nearly four times as great.[6]

Among students whose parents lack higher education, taking advanced math courses in high school more than doubles their own chances of attending college.[7] Juniors and seniors who take higher-level math make larger learning gains during their last two years in high school, particularly in the much sought-after "advanced skills," such as multi-step problem solving and the application of analytic logic. Students who make big gains on math tests during high school have higher earnings seven years later.[8]

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[6] Markow, D. & Moore, K. (2001, October). Progress toward power: A follow-up survey of children's and parents' attitudes about math and science. NACME Research Letter, 9(1). New York: National Action Council for Minorities in Engineering. Survey was conducted by Harris Interactive, 1999. (p. 4, Figure 6)

[7] Horn, L. & Nuñez, A. M. (2000). Mapping the Road to College: First-generation Students' Math Track, Planning strategies, and Context of Support. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

[8] Finding related to advanced math coursetaking and achievement from Bozick, R., and Ingels, S.J. (2008). Mathematics Coursetaking and

Further, taking advanced math has a direct impact on future earnings. All else being equal, inequities in advanced math courses account for one-quarter of the income gap between students from low-income and middle-class families ten years after graduation from high school. Students who take advanced math in high school have higher incomes ten years after graduating—regardless of family background, grades and college degrees.[9]

**Michigan has taken important steps in recent years.**

In 2006, Michigan adopted college- and career-ready graduation requirements – the Michigan Merit Curriculum – for all students. Michigan is one of just two states to currently administer the ACT/WorkKeys suite to all students, providing the state with meaningful student data capable of signaling to students, colleges, and employers student readiness for life after high school. There are emerging signs of improved student achievement; the ACT composite score has gone from 18.7 in 2008 to 19.3 in 2011. That gain may appear modest, but it is notable.[10]

Michigan is not alone. Today, 21 states accounting for nearly half of students in the U.S — *Alabama, Arizona, Arkansas, Delaware, Florida, Georgia, Kentucky, Michigan, Minnesota, Mississippi, Nebraska, New Mexico, North Carolina, Oklahoma, South Dakota, Tennessee, Texas, Utah* and *Washington* and the *District of Columbia* — not to mention two of Michigan's neighbor states – *Indiana* and *Ohio*, have elevated their high school diploma requirements to this rigorous level. These state policies are designed to do away with the type of tracking that has long existed in American high schools and continues to leave many students unprepared. Establishing statewide college-and career-ready graduation requirements is a critical lever for addressing the long-standing inequities in which low income students and students of color are systematically given a less challenging set of requirements. Currently, Michigan is one of only 8 states where the new graduation requirements policies are currently affecting graduating students; in this respect, other states are looking to Michigan as a leader in this space.

We recognize that some students arrive in high school unprepared. Establishing an opt-out provision or personal modification option for students – as Michigan has done – provides a safety valve for these students. Michigan's personal curriculum modification option provides flexibility for students to opt out of the math requirement, exceed the current requirements, or permit students with disabilities to modify requirements to meet the specifications of the student's Individualized Education Plan.

The Michigan Merit Curriculum has a number of virtues. It sets and communicates a very clear expectation about what courses students should take to be prepared for life after high school, and it removes obstacles students frequently encounter in gaining access to advanced college- and career-ready courses. It also simultaneously underscores the ultimate responsibility of students and their parents to take advantage of the opportunity to graduate ready.

The Michigan Merit Curriculum math requirements align with/overlap the requirements of math programs in many Michigan Community Colleges – meaning students can bypass remedial courses and move into credit-bearing math courses, increasing the likelihood of their success in two and four-year

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Achievement at the End of High School: Evidence from the Education Longitudinal Study of 2002. (NCES 2008-319). Washington, DC: U.S. Department of Education, National Center for Education Statistics. Finding related to math gains and later earnings from Rose, H. (2006, August). Do gains in test scores explain labor market outcomes? Economics of Education Review, 25(4), 430-446. (p. 445)

[9] Rose, H. & Betts, J. R. (2004, May). The effect of high school courses on earnings. The Review of Economics and Statistics, 86(2), 497-513.

[10] Kentucky is the only other state (of those administering the ACT to 90% or more of their students) that reports the percent of students meeting college-and career-ready benchmarks. Most states only report out average scores. Michigan's scores are higher than Kentucky's.

institutions. It also reduces the financial burden on students and their families.[11] Taking advanced math has a greater influence on whether students will graduate from college than any other factor—including family background. For those who go straight to college, taking advanced math in high school boosts college completion rates from 36 to 59 percent among low-income students and from 45 to 69 percent among Latino students.[12]

**Education is more important now than ever for ensuring the economic vitality of Michigan.**
Increasingly, access to middle class jobs requires at least some postsecondary education and/or training. This means raising expectations for all students, particularly those students for whom the education system has served the least – minority and low-income students. College and career readiness is *not* about all students attending four-year colleges or universities; it *is* about access to the middle class.

Michigan needs more workers with varying levels and types of post-secondary credentials, including technical skills credentials, which can carry high market value, particularly in the fields of business, management and financial operations; computer and math professions; and the health care industry.

Between now and 2018, Michigan will need to fill about 1.3 million vacancies resulting from job creation, worker retirements and other factors.[13] According to recent analysis from the Georgetown Center on Education and the Workforce, healthcare support, healthcare professional and technical and community and social services occupations are projected to grow fastest in Michigan, at rates of 20 percent, 15 percent, and 14 percent, respectively.[14] Michigan's most rapidly growing companies, Valassis Communications and Credit Acceptance, [15] underscore that obtaining a job in high-demand fields such as these necessitates post-secondary education or training preceded by a strong college-and career-ready course of study at the K-12 level.

The recent economic crisis and its disproportionate impact on Michigan has underscored that it is critical to have a well-prepared, innovative and nimble pipeline of workers. Education and workforce development are inextricably linked. Members of the baby boomer generation held an average of eleven different jobs between the ages of 18 and 42, a trend that will continue to grow with new generations of workers.[16] Higher-level mathematics equips students with the critical thinking and analytic skills, as well as the adaptability and flexibility necessary to navigate multiple job and career changes in the 21st century economy.

**Student preparation impacts military readiness.**
The expectations set forth for students in high school can also impact recruitment and placement for one the largest employers of young American workers - the military. In 2010, the U.S. Army provided The Education Trust with the results of all those individuals who took the Armed Service Vocational Aptitude Battery (ASVAB) with the intent of enlisting in a component of the Army. The complex architecture of the ASVAB enables the military to identify with a high degree of certainty potential staff accountants and radiology technicians, as well as applicants who can repair airplane engines, manage

[11] Byrd, S. & Langer, K. (2010). Mandating Change: Assessing the Implementation of the Michigan Merit Curriculum. CLOSUP Working Paper Series Number 29.
[12] Adelman, C. (2006, February). The Toolbox Revisited: Paths to Degree Completion from High School through College. Washington, DC: U.S. Department of Education. (p. xxvi)
[13] http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/State-LevelAnalysis-web.pdf
[14] http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/midwest-challenge.pdf
[15] http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/midwest-challenge.pdf
[16] Bureau of Labor Statistics News Release. (2008, June) Number of Jobs Held, Labor Market Activity, and Earnings Growth Among the Youngest Baby Boomers: Results from a Longitudinal Survey. Washington, DC: Author.

warehouses, and operate telecommunications systems. Overall, the Education Trust analysis of 2004-2009 ASVAB data found that 20 percent of the Michigan applicants were ineligible based on their scores. Forty-two percent of the African American applicants were ineligible (6th-highest rate of failure across the country). Twenty-four percent of the Hispanic applicants were ineligible.[17]

## Conclusion

All too often students graduate high school thinking they are prepared, only to be surprised when they are placed in remedial classes or cannot gain access to entry-level jobs. By failing to adequately prepare all students, we are closing doors and limiting students post-high school options and opportunities. Michigan's Merit Curriculum is designed to provide students with the core foundational knowledge and skills they need to succeed in any and all post-high school endeavors.

Michigan is poised to be a leader in the nationwide movement to ensure all young people are prepared for college and careers. The decisions that will be made in the near future around graduation requirements will play a key role in determining the success of Michigan's efforts. Now is the time to sustain your commitment to preparing all students for the jobs of tomorrow and ensure all doors are left open for students when they leave high school. Preserve the Michigan Merit Curriculum as adopted in 2006 and oppose any bills attempting to set less rigorous high school graduation requirements.

[17] http://www.edtrust.org/sites/edtrust.org/files/publications/files/ASVAB_4.pdf.